

A Study of North Korean Foreign Trade

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Abstract

As the North Korean economy deteriorates, the volume of exports in its foreign trade has been decreasing because of reduced availability of exportable products. The volume of imports, however, has shown some increases in some years since the imports include aid goods from abroad.

In recent years, extreme deficits in its balance of trade have continued.

China, the main trade partner, exported food and energy products to the North, but the price of energy has been increasing, and the quantities of food exported have severely fluctuated because of China's domestic food situation. Although China's investments in North Korea continue, they are for development of mineral products, and therefore, not directly contributing to the recovery of North Korean economy in general.

The North's trade with South Korea includes contractual processing trade but with limited varieties in the items traded. Food products, including aid goods, are imported from the European Union (E.U.) and the United States (U.S.) as well. However, the North's refusal to accept WFP aid in 2004 may possibly cause a decrease in the quantity of food imports hereafter.

Since North Korea's launch of missiles in July 2006, followed by a nuclear test in October 2006, it is highly probable that exports from both China and South Korea, primarily aid goods, will be substantially reduced. Therefore, a continued decreasing trend in its foreign trade will make it much more difficult for North Korea to get back on track to economic recovery.

Keywords: *North Korean Foreign Trade, Aid, Economic Sanction*

1. The Observation of North Korean Trade (especially the 1990s)

The IMF estimates North Korea's foreign trade statistics based on the trade statistics of member countries. North Korean foreign trade statistics are shown in Fig. 1. At a glance, an extreme decrease in North Korean exports is noticeable since 1991. The exports in 1999, the year of lowest exports in the 1990s, had decreased to less than 30 percent of exports in 1988, the year of largest exports in the 1980s. As a result of the radical decrease in exports, a huge trade deficit has been continuously sustained (the reasons for the export decline will be enumerated later). In 2001, North Korea recorded a deficit of \$2,360.8 million US dollar(USD). The magnitude of the deficit can be seen in view of the fact that the scale of the North's total trade since 1991 was between \$2.5 billion and \$4 billion a year, with an annual average of \$2.89 billion.

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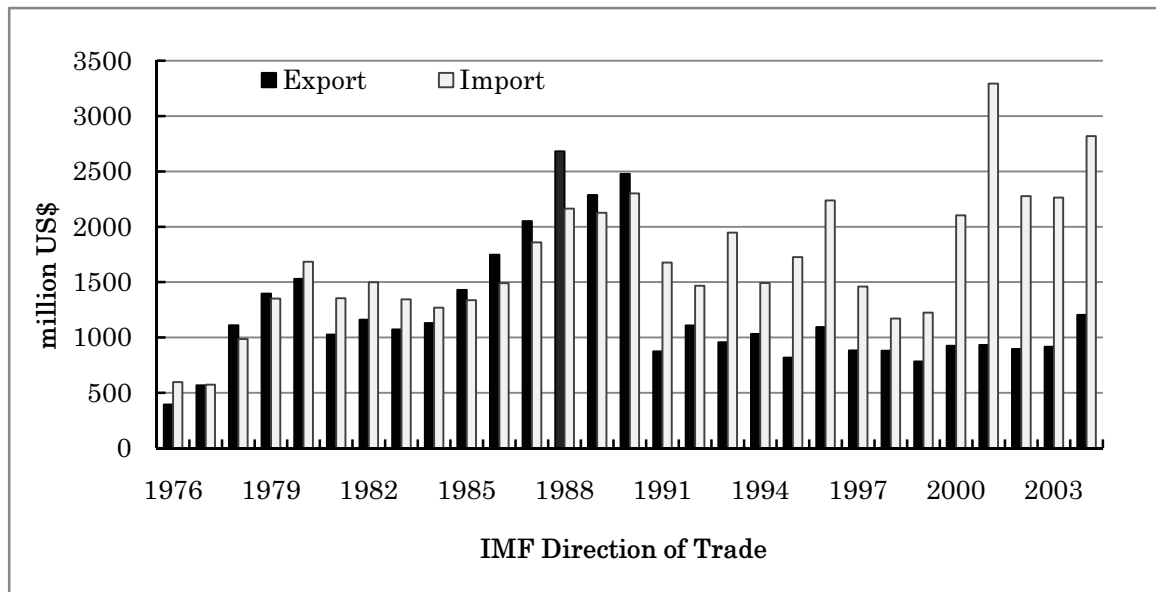


Figure.1 North Korean Foreign Trade

Note: Direction of Trade did not include trade with the Soviet Union until 1992 and trade with China until 1977.

Therefore, statistics from the annual edition of *Foreign Trade Statistics of Soviet Union* and *Economic Yearbook of China, 1982* were added in the North Korea Trade Statistics.

Until the 1980s, North Korea's primary trade partners were socialist countries. The Soviet Union's share of that trade was 30 to 50 percent and China's was 20 to 30 percent. In Japan, trade with the North was carried out primarily by companies owned by Korean residents of Japan, and the share of trade with Japan made up around 20 percent of the North's total trade.

The main reason for a change in the existing composition of trade was the collapse of the Soviet Union and Soviet bloc Eastern European countries, after which the North's trade with Russia in 1991 decreased to one seventh of the trade in 1990. North Korea was not a member of the Council for Mutual Economic Assistance and, therefore, was not included in the Soviet bloc system of the economic division of labor. Nevertheless, North Korea heavily depended upon the Soviet Union for supply of such important products as petroleum, petroleum products, food, and machinery and equipment. As such, for North Korea the collapse of the Soviet Union was a major shock. As imports of energy decreased, machinery and equipment could not be operated to sustain the production of goods, and thus exportable products also naturally decreased. Some of its main export items are fishery and shellfish products. The lack of energy immobilized fishing boats and thus fishing could not be carried out¹. A lack of petroleum products also means a lower output of chemical fertilizers, thus adversely impacting agricultural output. For these reasons, North Korea was not able to earn foreign exchange and, therefore, normal imports of products other than aid goods had been decreased.

¹ In the summer of 2004, the author traveled the Yalu River by boat and noticed a number of unused and rusted motorboats anchored on the North Korean side of the river.

In the 1990s, the shocks to North Korea were caused not only by the collapse of the Soviet Union and Eastern European countries but also by the establishment of diplomatic relations with South Korea by the Soviet Union in 1990 and by China in 1992. Earlier, toward the end of 1980s, Eastern European countries had already established diplomatic ties with South Korea. According to a theory of cross-recognition during the period of *detente* in the 1970s, security of the Korean peninsula was supposed to be maintained by the cross-recognition of the South by China and the Soviet Union on the one hand, while the U.S. and Japan would formally recognize the North. In reality, however, only the South has had diplomatic relations with former socialist countries, whereas the North still has no diplomatic relations with the U.S. and Japan and thus is still in a position of international isolation.

This isolated status of the North caused not only its diplomatic and ideological problems but also a severe, economically difficult situation for the country. North Korea, proclaiming a self-sufficient national economy while in reality it had been heavily dependent upon Soviet supplies of important materials, was inevitably forced into a position of economic deterioration.

Aggravating the situation, Kim Il Song passed away in 1994, and in the mid-1990s a number of natural disasters like great flooding and severe draught had continued in the North. Its economy, which had already begun to deteriorate already in the 1970s, became much worse in recent periods.

2. Trade with Major Partners

The values of North Korea's trade from trade statistics of its major trade partners in the most recent seven years are shown in Table 1. China was the most important trade partner of North Korea in 2005, followed by South Korea and Russia.

2.1. China

Until the 1980s, China was the second major trade partner of North Korea following the Soviet Union. In 1976, the China-North Korea Friendship Pipeline was opened, and China exported between 1 million to 1.5 million tons of crude oil to the North at friendship-prices of one-seventh to one-third of the international price (4 to 5 dollars per barrel).

However, the pattern of China-North Korea trade underwent a change as China initiated domestic economic reforms and its open door policy in 1978, and started implementing a socialist market economy in 1992. The settlement of the trade balance between the two countries was changed from traditional barter trade to hard currency settlement in 1991. In other words, the price

of imports had to be paid in hard currency. In view of the magnitude of the North's deficits in its China trade, it appears that the North was not able to actually settle the deficit in hard currency.

China had provided economic assistance to the North, but the size of assistance decreased in the 1990s. The decrease in China's foreign aid was not just to the North but to most other developing countries. The reasons for the decrease are as follows. 1) The end of Sino-Soviet conflict and of the Cold War no longer necessitated a continuation of China's burdensome aid to developing countries. Until then, China needed an increase in the number of countries that supported it on the international stage. 2) The aid never achieved the anticipated goals. 3) Chinese foreign aid had a negative impact on China's aid recipients.²

Moreover, when China opened diplomatic relations with South Korea, it was inevitable for the politically betrayed North to refuse any negotiation with China, even as an aid provider. The resumption of China's aid to the North began in 1995³ when the North suffered from major flooding damage.

As China's aid to the North decreased, the friendship prices no longer applied to the North as well. Furthermore, China's export prices to North Korea at times were higher than those China charged to international markets. For example, China exported crude oil to the North since 1991 at a price comparable to the international price or at a slightly higher price. The quantity of crude oil exports reduced also, and in 1997 it was only 506 thousand tons, about half that of the previous year. The low level of exports has continued ever since.

China itself became a net importing country of crude oil. In 2004, China imported 122.72 million tons of crude oil, 34.8 percent increase over the previous year, and became the second major oil import country, overtaking Japan. The rapid rise in crude oil prices on the international market since 2003 was caused partly because of supply problems caused by the War in Iraq, and partly by a rapid increase in demand as a result of China becoming a huge consumer of crude oil. In 2005, however, China's position shifted, and the increase in the import of crude oil was only 3.3 percent, while its crude oil exports increased by 46.9 percent compared to the previous year. The reasons for this shift were the fact that China imported crude oil in 2004 in excess of actual demand, and since the domestic price of petroleum products was controlled, Chinese petroleum industries were selling their products in overseas market where prices were expected to be higher than in domestic market. As a result of these conditions, China's export price of crude oil to the North became cheaper than the international price. Nevertheless, the price per ton of crude oil exports to the North was increased by 24.2 percent in 2004, and by 44.3 percent in 2005 compared to the previous year.

² Detailed explain refers Hiroko Imamura *Kitachousen "kyokou no keizai"* (Shueisha 2005) p.42

³ China promised 30 million yuan in aid (100 thousand tons of corn) "Nihon Keizai Shinbun" March 29th 1996 (The article said China announced that in October 1995.)

Table 1 Foreign Trade of North Korea (Unit : million US\$)

	1999		2000		2001		2002		2003		2004		2005	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
Asia														
China	328.70	41.71	450.80	37.22	573.10	166.74	467.54	270.69	627.58	395.35	799.50	585.71	1081.18	499.16
Japan	147.84	202.56	206.76	256.89	1064.52	225.62	132.65	235.84	91.45	174.39	88.74	164.30	62.50	131.12
South Korea	211.83	121.60	272.78	152.37	226.79	176.17	370.16	271.58	434.97	289.25	439.00	258.04	715.47	240.28
Hong Kong	7.62	13.60	8.07	9.73	5.50	8.31	3.81	7.47	1.59	4.08	1.45	4.74	1.26	3.59
India	0.04	0.03	0.16	0.02	0.18	0	0.19	0	0.13	0	0.18	0	0.04	0
Indonesia	2.63	0.97	13.09	1.23	2.90	2.11	1.56	2.86	2.00	0.40	3.69	6.79	6.61	8.70
Malaysia	5.40	2.38	0.75	1.77	7.08	1.10	4.36	0.23	7.17	0.26	20.49	0.11	17.99	0.37
Philippines	0	0	0	0.04	0	0	0.43	0	0.36	0	0.09	0	0.12	0
Thailand	4.59	0.50	4.59	0.50	2.64	0.60	4.31	1.11	5.10	1.28	5.98	2.27	5.14	3.32
Singapore	28.24	1.60	27.12	1.69	66.08	1.79	49.19	0.47	35.31	0.68	32.24	0.94	43.11	3.96
Taiwan	0.01	0	0.01	0	0.02	0	0.01	0	0.02	0	0.02	0	0.02	0
EU(25)	151.05	81.20	235.04	178.64	309.07	107.92	357.69	88.84	269.33	91.95	161.87	134.08	188.29	56.82
EU(15)	147.58	64.62	226.76	150.18	304.32	86.32	355.78	68.54	265.89	52.28	155.88	125.59	177.89	39.75
UK	32.50	3.81	38.34	2.11	60.35	2.68	35.94	2.53	19.06	3.03	0.67	0.91	0.95	3.35
Germany	38.13	23.11	32.13	24.02	103.18	22.48	166.15	29.21	83.06	19.42	78.48	109.99	73.02	17.29
France	6.75	3.80	10.35	3.69	7.88	3.74	8.69	1.68	5.13	1.18	7.73	1.20	9.00	1.76
Italy	17.95	2.66	14.62	5.38	11.26	3.15	18.07	3.81	32.86	4.20	12.82	4.52	13.92	0.81
Russia	48.51	7.21	36.63	7.63	56.10	14.66	47.40	10.32	112.34	2.90	204.67	4.58	224.40	6.86
Poland	1.01	10.10	2.43	8.63	2.16	11.43	0.67	11.10	1.83	8.34	1.71	2.65	4.05	17.49
Rumania			0	3.56	0	1.00	0.01	1.67	4.67	2.79	0.94	1.41	0.37	2.43
Hungary	0.32	0.45	0.64	0.03	0.49	0.53	0.06	0.39	0.27	1.77	0.37	0.99	0.18	0.21
USA	11.26	0.03	2.74	0.15	0.65	0.03	25.01	0.07	7.98	0	23.75	1.50	5.76	0
Canada	2.32	0.18	17.59	0.93	3.65	0.12	9.39	0.05	23.10	0.06	23.65	0.02	16.50	0.04
Brazil	139.25	43.07	109.22	132.67	208.26	62.34	99.26	73.38	73.56	65.61	169.94	69.80	66.09	71.56
Australia	0.59	2.96	1.94	2.06	0	1.72	0	7.26	0.76	4.79	5.22	4.58	0	8.81

Note: The numbers in the table show the North's trade partners' exports to and imports from the North. In order to estimate the North's exports and imports, one must apply FOB, CIF conversion.

The rates of conversion, considering the distances, will be approximately 15 percent for Europe, 10 percent for America and 5 percent for Asia. For example, British exports multiplied by 1.15 will equal North Korea's imports from Great Britain, whereas, British imports multiplied by 0.85 will equal the North's exports to Britain. This table is made from partner countries' original trade statistics.

Source: GTIS *World Trade Atlas*

In the export price of rice, there is an apparent difference between China's exports to North Korea and to the international market. Of course, higher quality rice will likely command a higher price. However, the North, with a necessity to maintain the quantity, is unlikely to intentionally import a higher-priced rice. In 2001, China's export price of rice to the North was 28.3 percent higher than the average price of China's total rice exports. Since 2003, on the other hand, China's export price of rice to the North became cheaper, and by 2004 and 2005 it became about 70 percent of its export price of rice to the world.

China's export price of corn to North Korea had shown a similar trend to that of its exports to the world market. In 1995 and 2002, when North Korea was forced to increase grain imports from abroad, China's exports prices of corn to North Korea were about 26.2 percent higher than those to the world markets (See Figs. 2-4).

With regard to increased Chinese exports to the North in recent years, there are some views that China is providing economic assistance to North Korea. Nevertheless, it may be necessary to carefully look into the detailed content of the trade.

It appears that Chinese exports of crude oil and petroleum products to the North rapidly increased in 2004 and 2005. However, while the value of petroleum exports compared to the preceding years increased by 15.1 percent in 2004 and by 41.4 percent (\$197.68 million) in 2005, the actual quantity of exports decreased only by 7.3 percent in 2004 and by 1.7 percent (522 thousand tons) in 2005 (The magnitude of the price increase was mentioned earlier). The price of crude oil was \$51.1 per barrel in 2005.

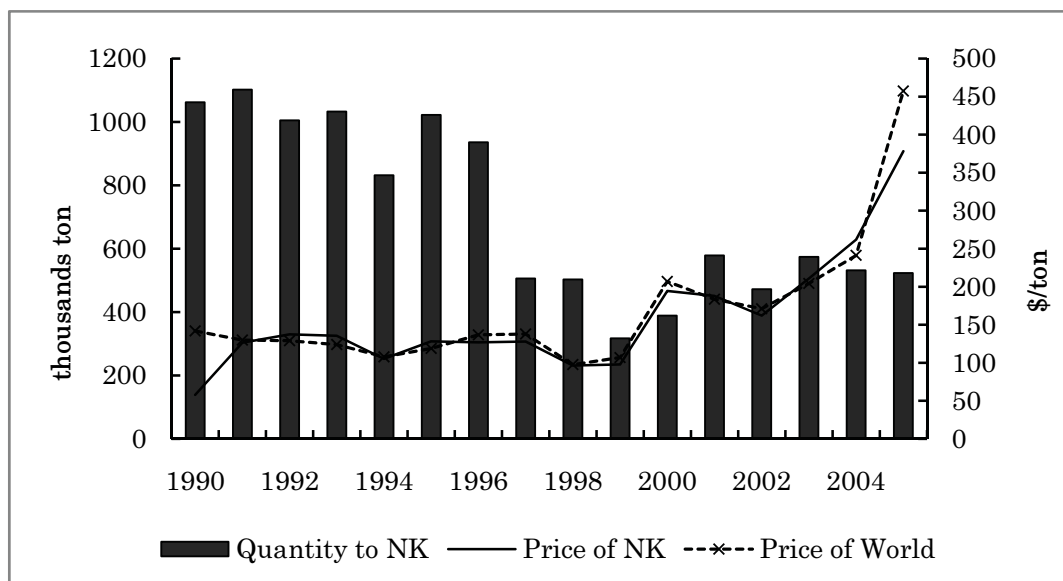


Figure 2 China's Export of Crude Oil

Source: *Customs Statistics of China*

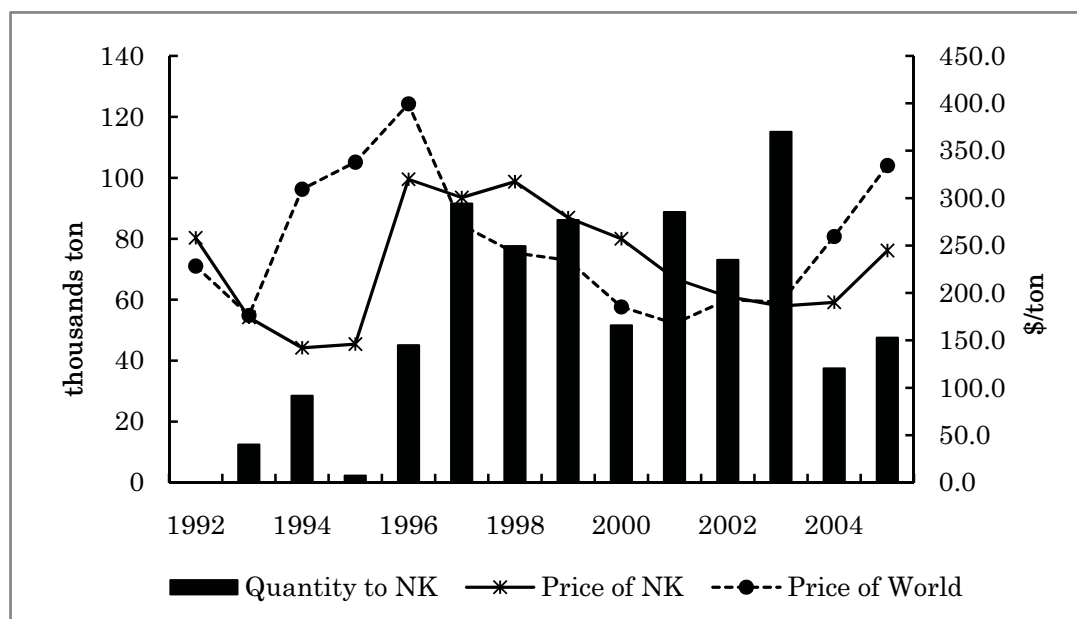


Figure 3 China's Export of Rice

Source: *Customs Statistics of China*

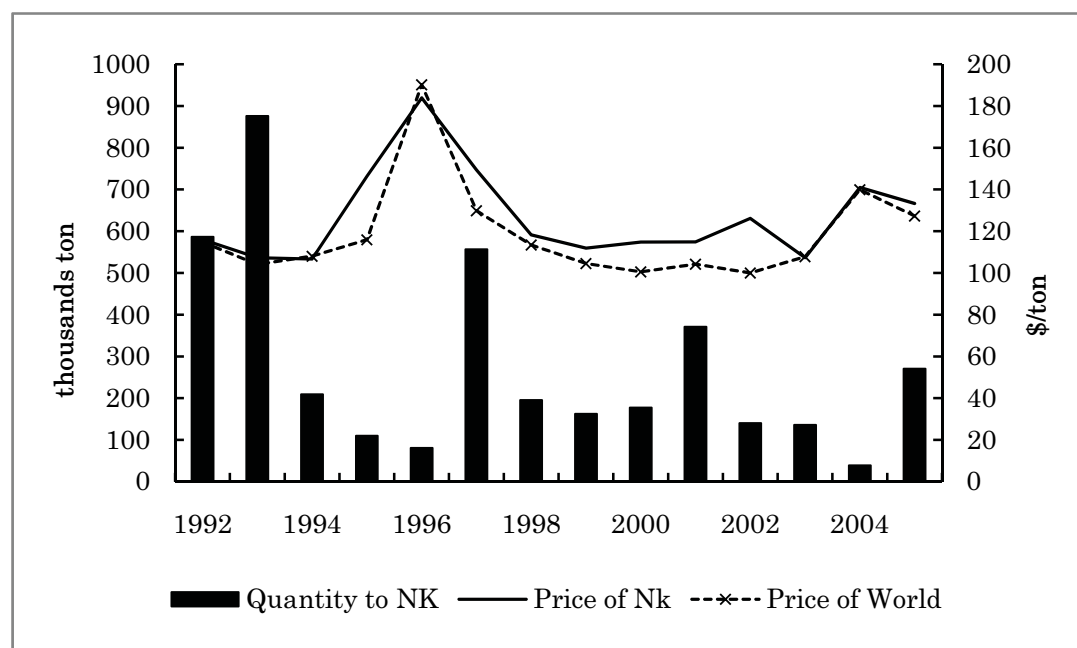


Figure 4 China's Export of Corn

Source: *Customs Statistics of China*

In China's exports of petroleum products to North Korea, the value increased by 36.6 percent in 2004 and 50.7 percent in 2005 (\$73.6 million), whereas the quantities exported increased only by 2.6 percent and 13.7 percent (145 thousand tons) in the respective years. Estimated increases in the price of petroleum products per ton are 33.2 percent in 2004 and 32.5 percent in 2005.

A matter of additional concern to the North is the problem of Chinese grain exports. In 2004, for example, exports of grain to North Korea drastically decreased, and the magnitude of fluctuations year-to-year is rather severe also. In 2004, China's total food grain exports to the world decreased by 78.4 percent and remained at 4.73 million tons, while the imports increased by 368.9 percent to reach 9.75 million tons. Chinese grain production in 2004 was not bad at all. In fact, grain output increased by 10.0 percent compared to the previous year for a total of 69.47 million tons of grain. Immediately after China joined the WTO,⁴ China was reluctant to import grain because of a higher price of grain in the international market caused by decreases in grain output in the US and Canada. The reason behind China's increased grain imports despite an increase in domestic grain production in 2004 was probably because, first, the volume of the international grain market became lower and, second, this was the final year of the WTO promised framework.

By 2005, China's grain export to North Korea recovered to 337.27 thousand tons (In the same year, China's total grain exports to the world also increased by 114.1 percent to 10.14 million tons, while imports decreased by 35.6 percent to 6.27 million tons). The major grain items that China exported to North Korea were corn, 277,980 tons in 2005 (a 6.8 fold increase in a year), and rice, 47,613 tons in 2005 (a 27 percent increase over the previous year). The export price of corn per ton increased by 31.3 percent in 2004, but decreased by 5.5 percent in 2005. In 2006, once again China's exports of grain decreased. The reasons for the decrease were that the export quota was terminated in February, 2006 and a new quota was not yet determined, and China's domestic price of corn was rising because of greater use of corn for ethanol production as a result of an increase in the crude oil price.⁵

Starting around 2004, China's investment in North Korea began to increase. There were some signs of alarm in South Korea as to whether China, as a part of China's policy to foster development in North East China, is attempting to make North Korea a fourth province of North East China; or whether the Chinese investment will remain in the North even after the eventual unification of North and South Korea.

Definitely, China's imports of minerals from North Korea have increased. For example, the import of iron ore was no more than 27 thousand tons in 1999 but increased to 48 thousand tons in

⁴ As a WTO member, China is under a framework to import 16.38 million tons in 2002 at one percent custom duty, and up to 19.52 million tons in the last year (2004) at one percent custom duty (Since it is not a minimum duty, China is not required to import those quantities).

⁵ "International Business Daily" March 2, 2006

2001, to 204 thousand tons in 2002, to 937 thousand tons in 2004, and reached 1.32 million tons in 2005. China's imports of other minerals from North Korea have also risen. For example, in 2005, the import of zinc increased by 88.6 percent in a year and recorded 30 thousand tons, and import of molybdenum rose by 61.2 percent to 619 tons.

There were reports that a Chinese enterprise in Yanbian invested \$12 million to develop an iron ore mine in Mosan, North Korea, and that the Jilin Province of China planned to invest \$2.86 million in a copper mine in the Ryangang Province of North Korea.⁶ There were a number of other reports indicating China's attempts to develop mineral resources in North Korea, including a signing of an agreement in December, 2005 between China's Deputy Premier Ceng Peiyan and the North's Deputy Premier Tu Chul on the "Joint Agreement between the Governments of China and North Korea Concerning Petroleum Development in the Ocean."⁷

China's import prices of North Korean minerals are substantially lower compared to those from world markets as shown in Fig. 5. Of course, the price of mineral resources depends on the quality of ore, such as its mineral content. For that reason, one cannot simply compare the prices alone. However, the fact remains that all North Korean minerals China imported, with only the exception of the import price per ton of molybdenum in 2000, have lower prices than those minerals imported from the world markets. In 2004, the price of North Korean copper was a mere 19.6 percent of the world price of copper. The price of North Korean lead remained around 60 percent to 70 percent of the world price until 2001. Because of a rapid rise in the import price of lead from the world market, however, the relative price of North Korean lead began to decrease starting in 2003, and by 2004 it became 22.6 percent of the world lead price.

There are statistics concerning China's overseas direct investments (already approved, excluding financial area) beginning in 1999 in the *Yearbook of China's Foreign Economic Relations and Trade* and the *China Commerce Yearbook*. In recent years, there clearly exists a tendency that China's investment in North Korea is increasing. China, starting in the latter half of the 1990s, undertook a strategy of "going out" and its overseas investments have increased. China's investments abroad grew in 2004, compared to the year before, by 62.5 percent in the number of investment projects (827), and by 77.9 percent in total capital (\$3,711.8 million).⁸ The share of China's investment in North Korea is no more than 0.09 percent of China's total investment abroad. Compared to China's main investment destinations, for example, Hong Kong, with 160 projects and \$957.27 million, and the U.S., with 97 projects and \$141.66 million in 2004, one notices how small its investment in North Korea really is. In 2004, the size of investment per project worldwide was \$4.48 million, while the size in the North was no more than \$1.12 million per project. The worldwide investment is the average of large projects for resource development and small projects

⁶ Korean Trade Association "Trade between North Korea and China in 2005" February 2006

⁷ <http://j.peopledaily.com.cn/2005/12/25>

⁸ "China Commerce Yearbook" 2004 ed., p.760; 2005 ed., p.910

like restaurant businesses. The amount per investment project in the North is so small, it is questionable whether a serious effort by China to develop the North's resources is taking place.

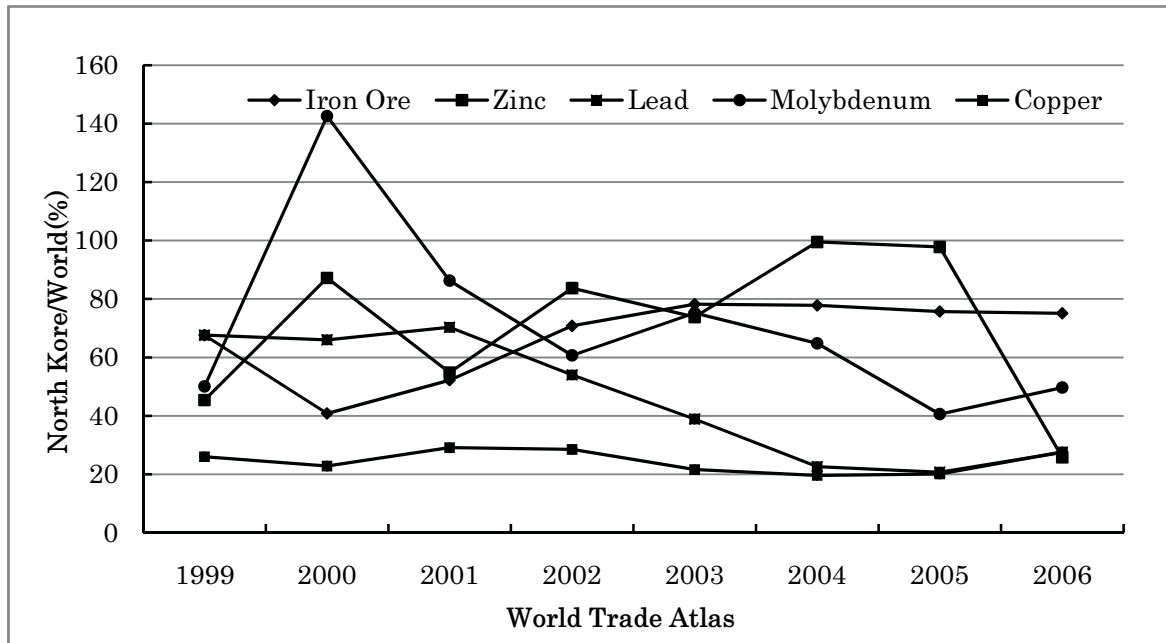


Figure 5 Comparison of Mineral Resources Prices

Source: Calculated from data in *World Trade Atlas*

Table 2. China's Investment in North Korea

	Number	Value (10 thousand)
1999	1	61.0
2000	0	0
2001	2	260.0
2002	4	150.3
2003	5	352.6
2004	8	899.9
Amount	32	1935.1

Source: Annual editions of *Yearbook of Foreign Economic Relations and Trade* and *China Commerce Yearbook*

Is China seriously attempting to aid in development of North Korea? Would China's investment in North Korea dramatically change the North Korean economy? Furthermore, would Chinese capital play a role in promoting the "take off" of the North Korean economy? At present, China is attempting to develop and import such resources as crude oil and iron ore from many areas of the world. Perhaps, North Korea may be no more than one of those areas within the framework of China's overall scheme. There is no sign that North Korea was included in China's "Strategy to Vitalize." The "Strategy to Vitalize" aims to upgrade and improve the efficiency of existing

enterprises in the area. The northeast region of China lacks any prospect of international cooperation. For instance, China's development plan for the Tumen River area that began in 1995 promoted the development of Hunchun City in Jilin Province, but there never were any international projects to develop the Tumeon River area. It is unthinkable that China's provincial and local governments will give priority to investment in North Korea instead of investment in its own province or cities. If any of China's non-state enterprises invest in North Korea, it is highly probable that they are the kinds of investment that can quickly exit from the North if needed. In fact, some Chinese enterprises invested in the North but supposedly withdrew because of extremely bad conditions there.⁹

When confronted with supply shortages in some products, China tends to overreact and produces or imports the products in quantities greater than are needed, and thus often ends up with an excess supply of these products. In the case of grain in 1995 and 1996, and crude oil in 2004, China imported them in excess of domestic need, resulting in domestic surpluses. Surplus production of household electronics in the 1980s and 1990s and sedan in recent years are other examples of China's overreaction to shortages.

A similar attitude may have prompted China's excessive imports of minerals from North Korea before 2005, and eventually caused a tendency to slow down its imports starting in 2006. During the first half of 2006, China's imports of minerals from the North decreased, for example, zinc ore by 14.2 percent (18,290 tons, with a price decrease of 21 percent from \$328 dollars per ton in 2005 to \$259 dollars per ton in 2006); iron ore by 69.8 percent (1,129 tons); and refined lead by 57.8 percent (1580 tons) compared to previous year.

China's leadership prefers to prevent the assimilation of North Koreans with ethnic Koreans residing in three Northeast Provinces. It is absolutely unlikely that China will try to make North Korea one of four Northeast Provinces as some in the South appear to be concerned about. China objected strongly to a complete assimilation of ethnic Koreans in China with Korean nationals as a whole. Problems of one ethnic minority may likely propagate to become the problems of other ethnic minorities.

After the North's launch of missiles in July, 2006, China at the U.N. Security Council opposed constraint sanctions based on Chapter 7 of the U.N. Charter against North Korea. It was probably because China wishes to avert a collapse of the North Korean regime. China, however, is in a position to give a warning to the North and voted in favor of, instead of abstaining from, the U.N. proposal to condemn North Korea. At the same time, the Bank of China froze the North Korean account at its Macao branch. Perhaps, China decided to eliminate an element of uncertainty at Northeast Asia. The reason for China to carry out economic aid to and foreign trade with the North is to minimize elements of uncertainty in Northeast Asia.

⁹ Author interview with Chinese scholar in 2005.

Observing monthly data of China's trade with the North, its exports in July and August of 2006 definitely decreased compared to those of June. Since China's trade usually has large monthly fluctuations, these decreases in numbers cannot be regarded as a sign that China reduced aid to the North or that it began a policy of export control toward the North. There was a report that North Korea prohibited entrance of Chinese into North Korea starting August 10, 2006 because North Korea disliked the intelligence activities by Chinese in the North.¹⁰ However, if Chinese were indeed prohibited to enter the North, the magnitude of China's export decrease would have been much greater than actual level. In view of the actual magnitude of the decline, it is unlikely that North Korea actually banned entrance of Chinese.

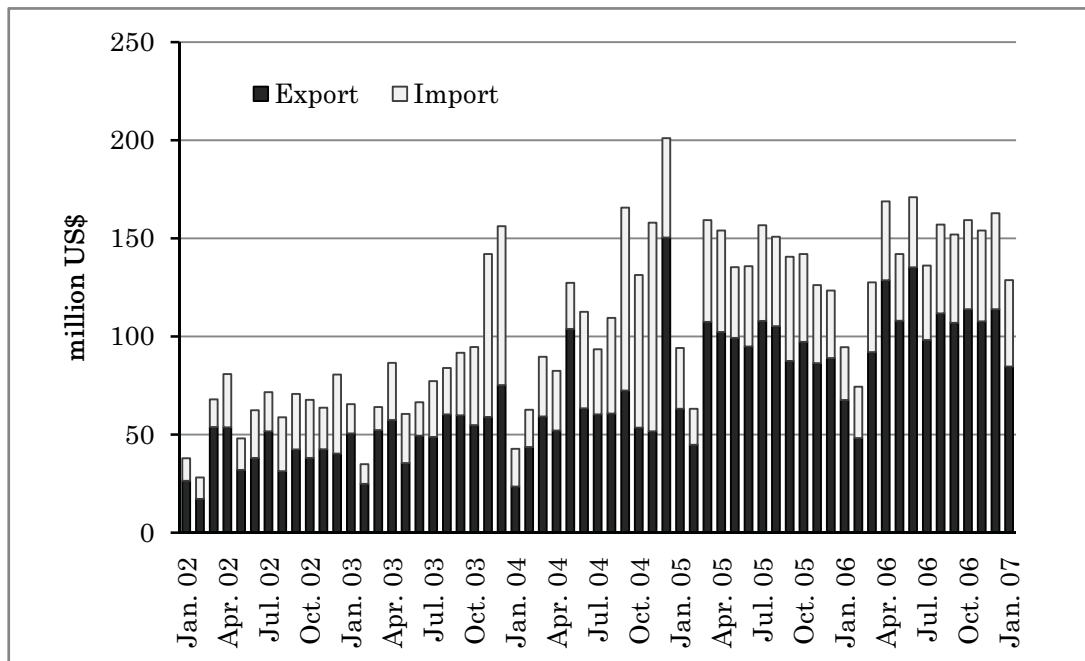


Figure 6 Monthly Trade of China with North Korea

Source: *Customs Statistics of China*, Monthly Editions

2.2. Trade with South Korea

Former President Ro Taewoo of South Korea, inaugurated in 1988, proposed the “Northern Policy” as one of his campaign promises. The “Northern Policy,” modeled after the former West German “Eastern Policy,” is a plan to improve the South’s relationship with socialist countries, and ultimately with the North. As the South’s relationship with socialist countries improved, trade with the North began to take place also. At the beginning, because the North disliked the influx of the South’s products into the North, the exchange was mostly the South’s imports of North Korean products, with minimal exports to the North.

¹⁰ “Nihon Keizai Shinbun” September 3, 2006

In 1994, the framework of KEDO (Korea Energy Development Organization) was agreed upon and construction of a light water-type nuclear reactor in the North was agreed upon. Because South Korean materials related to the construction of the reactor were transferred to the North, the South's exports to the North also increased. Since the Summit Meeting in 2000, the exchange between the North and the South accelerated and the South's aid goods to the North like grains and chemical fertilizers also increased. At present, trade with the South comprises about 20 percent of the North's total external trade.

The trade between the North and the South can be divided largely into commercial exchange and non-commercial exchange. The former is further separated into exchange (ordinary exchange and contractual processing exchange) and economic cooperation projects (Kae Song Industrial Zone Project, Kum Gan San Tourism and other projects). Non-commercial exchanges include aid to North Korea, social and cultural cooperation projects and the light water reactor project (Table 3).

Table 3. Trend of Exchange By Classification in 2005

Commercial Exchange		Export	Growth rate(%)	Import	Growth rate(%)
Exchange	Ordinary exchange	20,862	-1.6	188,916	25.8
	Contractual Processing	78,503	15.0	131,226	21.7
	Subtotal	99,364	11.1	320,142	24.1
Economic cooperation	Kae Song Industrial	156,943	276.9	19,794	—
	Kum Gang San Tourism	87,015	108.8	50	-52.8
	Other Projects	6,202	8.1	31	82.3
	Subtotal	250,160	180.9	19,874	—
Total		349,524	95.8	340,017	31.7
Non-commercial Exchange					
Aid	Non-government	242,718	34.7	42	—
	Government	122,258	56.1	19	—
	Subtotal	364,976	41.2	60	—
Others		577	-65.9	204	—
Light Water Reactor	Construction	394	-13.5	0	—
	KEDO Heavy Oil	—	—	—	—
	Subtotal	394	-13.5	0	—
Total		365,948	40.4	265	—
Grand Total		715,472	62.9	340,281	31.8

Sources: Ministry of Unification. *Trend of South North Exchange in 2005*, Korea Trade Association

(January, 2006) Export (import) means South Korean export (import).

In commercial exchanges, growth in the South's exports to the North was caused by the transfer of heavy construction equipment and machinery and raw materials used for development of the Kae

Song Industrial Zone. The increases are also caused by the shipping of pottery products, soap and other materials necessary for construction of tourism facilities in the North.

The major items that the South imported from the North are agricultural, forestry and fishery products. Imports of clams increased 46.0 percent to \$31.16 million in 2005, as well as increases in imports of squid and octopus. The South's imports of main minerals in 2005 include zinc ore, with an increase of 7.0 percent to \$41.9 million, and non-ferrous mineral (sand), with a 9-fold increase to \$23.44 million.

The top ten items in the contractual processing trade in 2005 were, with the exception of 7th ranked digital televisions (an increase of 16.3 percent at \$18.31 million), mostly clothing products such as athletic wear (increase of 175.2 percent at \$33.56 million), and coats and jackets (decrease of 6.1 percent at \$18.31 million). Items used for daily living are pots and pans and mostly other kitchenware.

There are two locations where the North plans to attract the South's capital. One place is Kae Song City located near 38th parallel. In August 2002, immediately after the North-South Summit Meeting, an agreement was reached between Chung Mong Hyun, Chairman of Hyundai Asan, and Kim Jong Il to construct an industrial zone in Kae Song. (Later, management of the Kae Song Industrial Zone was taken over by the Korea Land Corporation, a South Korean government corporation.) In November 2002, the North adopted the Law Concerning Kae Song Industrial Zone. In June 2003, in the midst of turmoil due to suspicions surrounding the North's nuclear ambitions, a ceremony was held for inauguration of the Kae Song Industrial Zone. The first stage of the project was to construct the industrial zone on 3.3 million square meters of land by 2007 and to parcel out space to 300 companies producing textiles, shoes, leather, clothing and so on. However, cause of South Korean government control on firms using high-tech production methods, only 15 South Korean companies (of which 13 are in operation) were permitted to go to the Kae Song Industrial Zone by the end of June 2004. Those companies are limited primarily to light industry manufacturing, producing pots and pans, other kitchen utensils and clothing.

The other project is Kum Gang San Mountain tourism. The idea of developing a famous tourist area in the Kum Gang San Mountains was agreed upon by North Korean authorities and Chung Choo Young, the late Honorary Chairman of Hyundai Group, when he visited the North in 1989. However, tourism from the South's residents did not begin until November, 1998. The Hyundai Group envisioned the development of a comprehensive resort and tourism area at Kum Gang San. The actual number of tourists did not increase as expected, however, because of strict restrictions imposed by the North Korean authority preventing tourists from taking any photographs of places unrelated to the tour and forbidding tourists to have any contact with people in the North. Due to the Asian economic crisis, the Hyundai Group was confronted with a management crisis of its own, and coupled with death of Chung Choo Young in 2001, the group was contemplating suspension of the

tourism business itself. For that reason, the South Korean government decided to help Hyundai with funds from the North-South Exchange Program and also changed the method of payment to the North from payment of a fixed sum to payment per number of tourists. In addition, because the North gave permission to South Korean tourists to travel to the area not only by ship but by car as well, the tourism enterprise continues.

In projects to aid the North, the South's government in 2005 sent \$116.93 million in goods to the North. These include rice (221.0 percent increase at \$11.01 million), cement (\$2.76 million), and light oil (\$2.32 million). The sum of non-governmental aid to the North was \$193.66 million, including fertilizer (\$144.11 million), corn (40-fold increase to 9.81 million tons) and petroleum products (\$4.92 million).

After the conciliatory policy of the Roh Moo-hyun government toward the North, there is a great possibility that the policy toward the North may change depending who is the next president and which party will be in power in the South. After the missile launch, the South terminated aid of rice and fertilizer to the North but announced a continuation of the Kae Song project. The two Koreas held cabinet level meetings, despite the recent missile launch, but the meeting was discontinued because of the North's demand for continued aid of rice.¹¹

After the North's nuclear test in October, 2006, serious debates about revision of the policy toward the North began in the South. Therefore, it is inevitable that South Korea will reduce trade and aid and will be forced to suspend Kum Gang San tourism as well as the Kae Song Industrial Zone Projects.

¹¹ "Nihon Keizai Shinbun", July 14, 2006

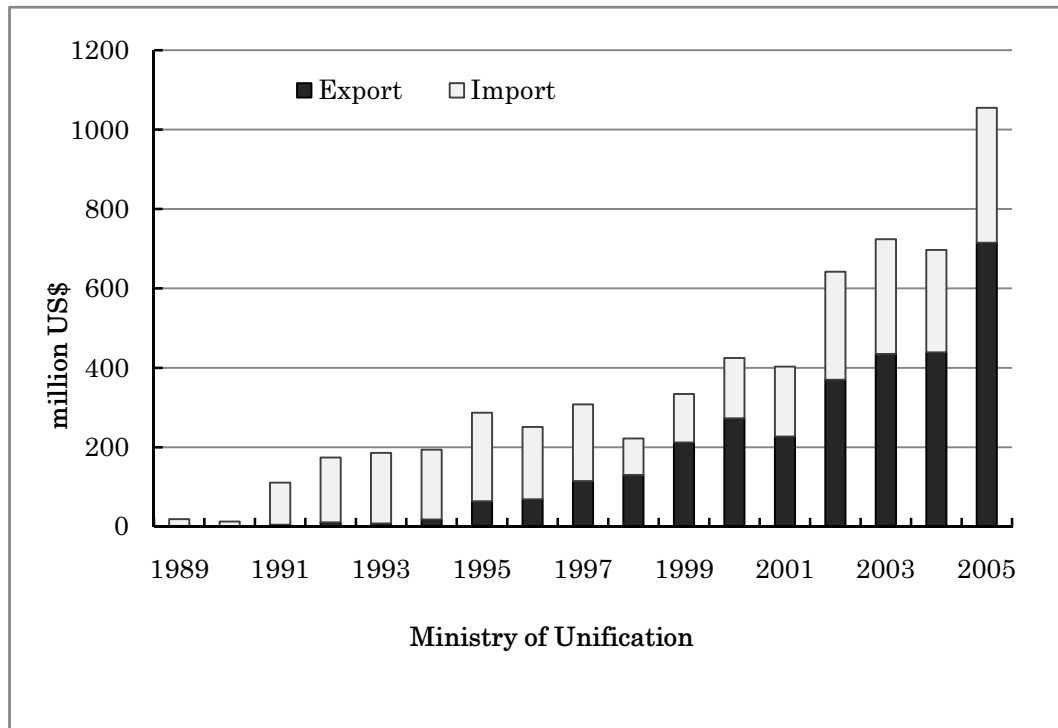


Figure 7 South Korea's Trade with North Korea

Source: Ministry of Unification.

Table 4. North South Trade: The South's Exports In Commerail Trade (unit:1000 US\$)

	2004	2005	Growth rate(%)
Electric &Electronic Products	6,153	5,795	-5.8
Machinery	4,867	5,753	18.2
Minerals	3,026	656	-78.3
Agricultural, Forestry, Fishery Products	2,720	3,438	26.4
Textiles	1,434	1,315	-8.3
Miscellaneous Products	932	615	-34.0
Rubber and Leather Products	—	871	—
Iron and Steel	708	1,481	109.2
chemical Industry Products	427	812	90.2
Daily Use Products	97	126	29.9
Total	21,208	20,862	-1.6

Source: Ministry of Unification

Table 5. North South Trade: The South's Imports In Commercial Trade (unit: 1000 US\$)

	2004	2005	Growth Rate(%)
Electric & Electronic Products	26	644	2376.9
Machinery	80	1,165	1356.3
Minerals	5,925	29,220	393.2
Agricultural, Forestry, Fishery Products	99,577	112,310	12.8
Textiles	3,889	1,609	-58.6
Miscellaneous Products	397	545	37.3
Iron and Steel	39,188	42,169	7.6
chemical Industry Products	184	126	-31.5
Daily Use Products	746	1,127	51.1

Source: Same as Table 4.

**Table 6. North South Trade: The South's Imports of Items in Contractual Processing.
(Unit: 1000 US\$)**

	2004	2005	Growth Rate(%)
Textiles	91,996	117,613	27.8
Electric & Electronic Products	8,771	8,634	-1.6
Daily Use Products	3,026	2,960	-2.2
Others	3,953	2,019	-48.9
Total	107,746	131,226	21.8

Source: Same as Table 4.

2.3. Trade with Russia

During the Soviet period, trade with the Soviet Union made up about 50 percent of North Korea's total trade. After the collapse of the Soviet Union, trade decreased drastically and Russia made up less than 10 percent of the North's total trade. In the Soviet days, it imported most important items from the Soviet Union such as machinery and equipment, petroleum products and wheat, and therefore, drastic reduction in imports of these important products accelerated the deterioration of North Korean economy.

Since 2003, however, Russia once again became an important trade partner (as a source of imports) to the North. In particular, imports of petroleum products from Russia greatly increased again starting in 2003. Its imports of petroleum products were no more than 98 thousand tons in 2002, but rose to 413 thousand tons (\$91.28 million) in 2003, to 543 thousand tons (\$159 million) in 2004, and then declined to 339 thousand tons in 2005 (a 9.0 percent decrease in total value but price

per ton increased by 45.7 percent). Petroleum products imported from Russia are mostly for diesel oil, whereas petroleum products from China are mainly aircraft fuels and gasoline. Although a precise comparison of petroleum products from the two countries is not possible, the export price of Russia continued to be cheaper than that of China. For instance, in 2004 the Chinese price was \$383 per ton while the Russian price was \$292 per ton; in 2005, compared to the Chinese price of \$506 per ton, the Russian price was \$427 per ton, still cheaper than that of China despite the increase.

Russian exports of grains to North Korea was no more than 890 tons in 2002, but increased to 1,070 tons (mainly wheat) in 2003, and to 34,716 tons (\$5.31 million) in 2004. In 2005, however, there were no Russian grain export to the North again.

At the time of North Korea's nuclear test in October, 2006, Russia published trade statistics only from January to March, 2006, and Russia's exports of petroleum products to the North, compared to the same period of the previous year, drastically decreased by 91.1 percent (6,092 tons), while exports of food grains remained zero. Because of the nuclear test, Russia's total exports to the North are likely to sharply decline.

2.4. Trade with Japan

In the 1970s, North Korea imported industrial plants from Western countries, as well as from Japan. The timing was unfortunate for the North because, whereas prices of plants were rising sharply due to the ongoing oil shock at the time, the price of nonferrous metal, North Korea's major export item, declined. For these reasons, North Korea was not only unable to pay for plants imported but also, in order to save scarce foreign exchange, ceased to imports parts and materials related to operation of the plants. Consequently, North Korea was not able to increase domestic production by making use of those expensive imported plants. As a result, the North had to negotiate postponement of payments with the countries concerned. North Korea negotiated delay of payment with Japan and reached an agreement, but only a part of agreed payment was made in time, and even after renegotiations payment was not carried out as agreed. In the mid-1980s, Japanese enterprises decided to demand foreign trade insurance. Since then, new trade was not able to obtain insurance and few Japanese enterprises engaged in the highly risky trade with the North. For these reasons, trade with the North was carried out mostly by pro-North Korea Korean residents in Japan and their enterprises. Thus, Japan-North Korea trade is often referred as "Korea-Korea trade in reality."¹²

¹² Detailed explanation refers "Chuugoku kara mita Kitachosen Keizai Jijyou" pp. 66-68 (by Hiroko Imamura Asahi Shinbumsha 2000)

Until the 1990s, trade with Japan comprised about 20 percent of the North's total trade. Its exports to Japan were fishery products like clams and whiting, vegetables like pine mushroom, anthracite and clothing manufactured by contractual processing. Japan even sent to the North 500 thousand tons of grain aid in 2001.

However, because of protests by Japanese people surrounding nuclear suspicions and kidnapping incidents, trade between North Korea and Japan has shrunk in recent years. In 2002, a catch-all regulation was adopted in Japan. The new regulation requires an export permit by the Ministry of Economics and Industry for export of any products that can be used for developing nuclear weapons or missiles. Under this regulation, a company was exposed for attempting to export large trailers without the permit.

Large retail outlets of men's suits, manufactured in North Korea by contractual processing, ceased to handle them by the autumn of 2002. It was because of uncertain timing of shipping by the North's side, and because consumers disliked products "Made in North Korea."¹³

In 2004, the foreign exchange law was revised and a new law to prohibit entrance of specific ships into Japanese ports was adopted. The law of compensation for pollution caused by oil leaks was revised, and the new version mandated a ship owner's responsibility for insurance starting in March 2005. Because no more than 2.5 percent of North Korean ships were insured by 2003, their entrance to Japanese ports declined, further causing the downward trend of Japan-North Korea trade.

After the launch of missiles in July 2006, the Japanese government implemented nine measures of sanction.¹⁴ These measures include prohibiting entrance of a specific ship, the SS Man Kyong Bong, and the North's government employees into Japanese ports, and prohibiting landing of the ship's crews in Japan. Since the North's nuclear test, Japan decided on its own special measures of sanction and these are: total ban of imports from the North, preventing all North Korean ships from entering Japanese ports, and expanding the scope of persons prohibited to enter Japan.¹⁵ Because of these sanctions, trade between the two countries will most likely decrease even further.

In the worldwide trade of North Korea as a whole, it maintains a large deficit on its trade balance. With Japan, however, because of declining Japanese exports to the North, it retains a surplus in trade balance.

¹³ "Asahi Shimbun," February 17, 2004

¹⁴ "Nihon Keizai Shinbun," July 6, 2006

¹⁵ "Nihon Keizai Shinbun," October 12, 2006

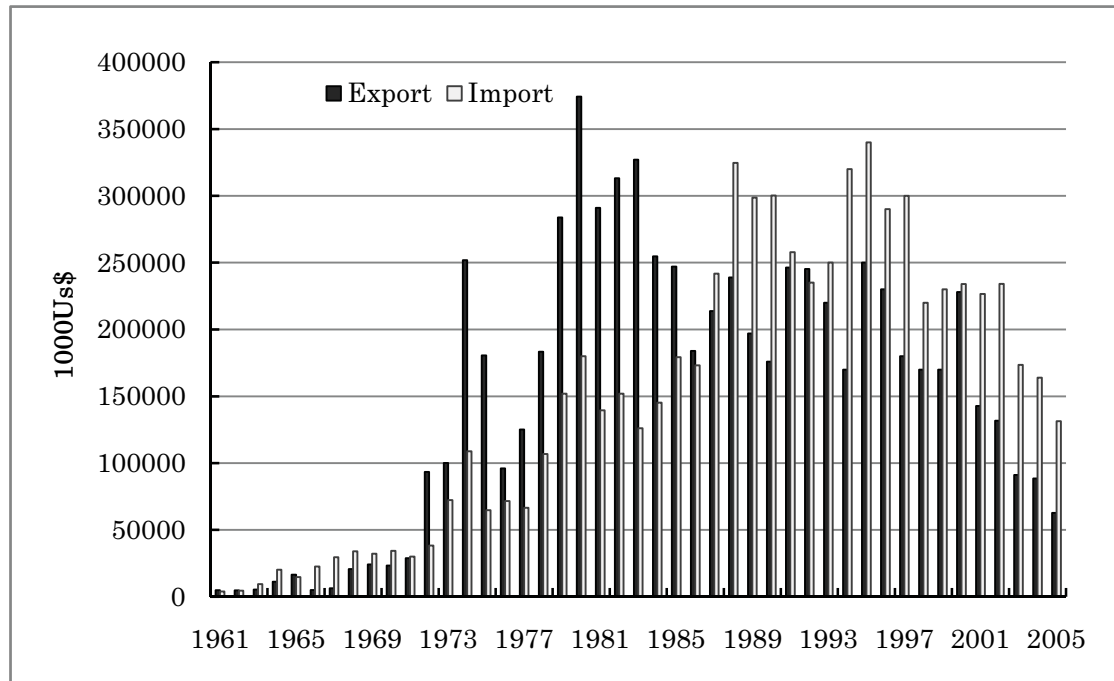


Figure 8 Japan's Trade with North Korea (Excluding Rice Aid)

Source: Customs Statistics of Ministry of Finance.

Observing the commodity-wide trend of Japan's trade with the North in 2005, a uniform decline in export of all major items can be noticed. Some examples are transportation machinery and equipment (a 19.9 percent decrease at \$27.235 million), electric machinery (a 32.7 percent decrease at \$4.863 million), general machinery (a 39.3 percent decline at \$4.142 million), textiles (a 48.2 percent decrease at \$2.701 million); and total value of its exports was \$62.801 million, a decrease of 29.0 percent. In Japanese imports in 2005, fishery products, which occupied nearly half of total imports in 2004, registered a substantial decline of 48.9 percent (at \$36.502 million) and the total value of imports was \$131.402 million, a decrease of 19.8 percent.

2.5. Trade with the EU

Exports from the EU to North Korea sharply declined in recent years. Among different commodities, general machinery made up a quarter of total exports followed by optical machinery. (In 2002, electric machinery ranked second). In the EU imports from North Korea, ships became the largest items comprising more than half of total imports in 2004. There were no records of importing ships until 2004. Without ships, the North's exports to the EU would have been even more dismal. Until 2003, clothing and electric machinery were the main products the EU imported. For France and Germany, both EU members, the problems of unpaid debts by North Korea are not yet resolved and, therefore, there is little possibility that EU trade with the North will dramatically increase in the near future.

Table 7. The EU (15) Trade with North Korea (unit: million EUR)

Exports	2002	2003	2004	Change(%)
General Machinery	73.85	53.43	32.18	-39.8
Optical machinery	15.34	11.48	17.43	51.8
Plastics	15.01	15.55	12.85	-17.4
Steel	5.82	5.56	12.23	120.0
Electric Machinery	22.13	12.82	9.80	-23.6
vehicles	10.21	3.77	6.47	71.6
Steel Products	3.91	1.24	4.91	296.0
Total	302.41	226.01	132.50	-41.4

Imports	2002	2003	2004	Change(%)
Ships	0	0	63.22	—
Clothing	9.68	9.29	8.92	-4.0
Electric Machinery	17.63	9.63	8.60	-10.7
General Machinery	6.01	6.54	7.27	11.2
Lime, Cement	4.20	4.11	4.53	10.2
Total	58.26	44.44	106.75	140.2

Source: World Trade Atlas

2.6. Trade with the US

The United States permitted only humanitarian aid goods to be exported to the North. Main items the US exported to North Korea were products like wheat and vegetables (Table 8), and greatly fluctuated year-to-year because the exports are influenced by US government policy.

Table 8 US Exports to North Korea (Unit:1000 US\$)

	2002	2003	2004	2005
Wheat	12,392	472	5,423	2,277
Rice	2,537	706	0	0
Soybean	0	0	0	1,573
Edible Oil	0	583	0	0
Corn	0	0	6,801	0
Eggs	1,539	2,354	1,157	0
Vegetables	0	804	3,461	1,387
Other Food	2,537	41	2,549	0
Total	25,012	7,977	23,750	5,757

Source: <http://www.census.gov/foreign-trade/statistics>

2.7. Trade with Other Countries

Thailand's total export to North Korea is proceeding at around \$2 million to \$6 million a year. Thailand exported 95.3 thousand tons (\$442 thousand) of rice to the North in 2003, 183.9 thousand tons (\$1.05 million) in 2004, and 100.1 thousand tons (\$674 thousand) in 2005. The value of the North's trade with countries in Asia became greater than the value of its trade with former East European bloc countries. However, trade with Taiwan is limited to a very small scale. When China implemented diplomatic relations with South Korea, China was concerned with Taiwan's possible approach to North Korea. There was a rumor, immediately after the China-South Korea diplomatic tie, to the effect that Taiwan was planning to export its nuclear waste to North Korea, but this never resulted in an expansion of trade. Brazil exports feed grains, mostly bean cake, iron ore, cotton yarn and fabrics to North Korea.

3. Trade by Commodities

3.1. Energy¹⁶

Electricity is being traded between China and North Korea. For example, the common use of Shuifeng (Supung) Electric Generation Station by both countries often results in one country using more than the other in some year. According to a Chinese researcher, at present China is using most of the power generated at Shuifeng because the North did not pay for use of electricity¹⁷ (In 2004, the North exported 83 million KWH of electricity to China.). The commonly used power generating station is getting old and worn out and, therefore, is not in a position to supplement a shortage of energy supply in the North. China is planning to construct a power generating station in the suburb of Manpu City on the middle part of the Yalu River at a cost of 350 million Yuan. In combination with this project, China supposedly offered the North power generating facilities and the North will export the electricity to China once the station is completed (expected date of completion 2009).¹⁸ In accordance with a 1994 agreement with KEDO, 500 thousand tons of crude oil was supplied to North Korea, but the supply was terminated since the exposure of the North's high enriched uranium problem in 2002.

Until the 1980s, North Korea imported about 1.5 million to 2 million tons of crude oil and petroleum products a year primarily from China and the Soviet Union. At present, its annual imports of these products are limited to about 500 thousand tons to 800 thousand tons. In 2004 and 2005, thanks to energy imports from Russia, North Korea somehow managed to get by the energy

¹⁶ For imports of crude oil and petroleum imports from China and Russia, please refer to relevant parts in sections 2.1 and 2.3.

¹⁷ Author interview in 2001.

¹⁸ "Nihon Keizai Shinbun" June 26, 2006

problems, but the existence of a severe energy shortage is still very definite. The factory utilization rate was estimated to be about 30 percent in the 1990s,¹⁹ but there is a strong possibility that the rate has further declined. It is unlikely that an effort to save energy is taking place in the North. On the contrary, due to the process of aging and obsolescence going on in existing machinery, the waste of energy is likely to be quite substantial. In that case, it is possible that the utilization rate of machinery and equipment may decrease even more. There also is a problem of allocating energy use between military and civilian uses.

3.2 Grains.

3.2.1. Grain Aid through International Organizations.

Since 1995, when the North's agricultural harvest sharply declined because of natural disasters, it requested grain aid from the international community. The grain aid to North Korea through FAO/WFP is shown in Table 9. Starting in 1995, aid to the North began in earnest and reached 1.54 million tons in 2000. Considering the North's total output of grain in that year of 2.95 million tons (FAO estimate), the quantity of aid comes to about 34.3 percent of the total supply of grain.

Among the countries providing grain aid to North Korea through WFP, the U.S. during the Clinton era (with exception of 2000, the last of the Clinton years) was the largest donor country. China also was a large donor, and aid from China in 2001 reached 38.2 percent of total aid. Even in 1997, when the quantity was not very large, China's aid comprised 14.4 percent of the total. Besides, China's grain aid to North Korea was carried out through another direct channel without going through WFP.

With regards to WFP, in the autumn of 2005 North Korea demanded: 1) to stop emergency humanitarian aid within the year; 2) to transfer the form of aid to that of developmental aid and 3) to stop monitoring its activities. WFP, as a part of accepting the North's demands, made it clear that operation of food processing factories in North Korea would be terminated by the middle of November 2005.²⁰

At a meeting held in February, 2006, the WFP Operation Committee decided that the nutritional problem of North Korean children was still a matter of serious concern, and thus resumed aid in May 2006.²¹ The renewed aid targeted 1.9 million persons, with 150 thousand tons of grain and \$102 million in two years. The scale of resumed aid was substantially smaller in view of fact that the targeted number of people had been 6.5 million until then. Also the number of persons

¹⁹ Author interview with Chinese scholar in 2001

²⁰ "Nihon Keizai Shinbun" September 29, 2005

²¹ "Asahi Shimbun" February 25, 2006

monitoring decreased from 48 to 10 while the target areas were limited to 30 locations from a previous 160 locations.²²

Table 9 WFP Aid to North Korea (Unit : ton)

	Total	China	EC	US
1994	75,000	0	—	—
1995	734,207	0	—	9,185
1996	505,780	170,000	39,056	91,607
1997	831,198	120,000	171,298	147,799
1998	1,036,390	170,454	94,500	613,500
1999	894,749	213,069	80,000	461,523
2000	1,542,440	428,439	27,226	140,000
2001	1,069,860	408,853	9,000	297,850
2002	973,064	257,602	69,185	118,856
2003	837,442	163,530	1,860	47,889

Note: Statistics for 2004 and 2005 not collected.

Source: FAOSTAT

3.2.2. Grain Aid by South Korea

South Korea carried out grain aid directly to North Korea without going through FAO/WFP. From 1995 to 2003, the South's grain aid to the North reached 2 million tons, 300 thousand tons in 2004, and 500 thousand tons in 2005. WFP requested China and South Korea to go through WFP for grain aid to the North because the two countries have no monitoring system and, therefore, risk the possibility that the North may divert the grain aid from civilian to military use. In the background of the North's refusal to accept aid from the international organizations in 2005, it is probable that it may have decided that some degree of aid can be obtained from China and the South without a system of mandatory monitoring.

Although the South's grain aid to the North began in 1995, a serious effort started after 2000 when the North-South Summit Meeting was held. About three quarters of the total grain aid to the North was provided by China and South Korea, and the North welcomes them because monitoring is less strict compared to that of WFP. For the grain aid, a loan from the South's Import and Export Bank is used. The provision of the loan is 30 years, with a 10-year suspension, at one percent annual rate of interest. In May, 2005, the South's government decided upon additional aid to the North as a condition of reopening North-South cabinet level meetings that the North had suspended since July 2004. There was some criticism, even within South Korea, for the government decision to promote the cabinet level meetings at the expense of six-party talks. From 1999 to 2004, 1.5 million tons of chemical fertilizer was provided to the North, and from 2002 to 2004 the quantity reached to 300

²² "Nihon Keizai Shinbun" May 12, 2006

thousand tons per year. Although the South stopped the food and fertilizer aid to the North since July, 2006, aid related to typhoon damage in July has continued.

3.2.3. U.S. Aid to North Korea

The U.S. permits exports of humanitarian materials to North Korea. Since 1997 the U.S. helped the North with 2 million tons of grains, more than 90 percent of which is aid through WFP. There is a substantial change in the stance of grain aid to the North from the Clinton administration to the Bush administration. During the Clinton administration, for example, grain aid from 1997 to 1999 was made to the North on the condition that the North participated in four-party talks (South and North Korea, the U.S. and China).²³ Aid of 500 thousand tons grain in 1999 was given under the condition that North Korea stop construction of the Kum Chang Ri nuclear power generating station.

On the other hand, the Bush administration demanded that the monitoring system for aid should be strict to American standards, and in December, 2002 an administration official stated that the aid decisions could not be made because the monitoring system was not up to the standard. In January, 2003, President Bush announced that “the U.S. will lead energy and grain aid if the North will abandon nuclear development.” However, that is “depending on the degree of the monitoring system”, a spokesman stressed. In February, 2003, the U.S. decided upon grain aid of 40 thousand tons at the request of WFP, and in December of the same year, 60 thousand tons of aid to the North. But, the administration stated that this aid was not related to influencing the six-party talks.²⁴

3.3. Imports of Grain by North Korea

Although North Korea often exported rice until the 1980s,²⁵ imports of grain expanded since the 1990s (Table 10). However, in 1994, the year when North Korea probably needed an increase in grain imports because of severe hail-storm damage and reduced domestic production, the actual imports, however, declined to nearly a third of imports in the previous year. In 2005, the imports recovered to one million tons but never reached the level of 1993. The price per ton of rice increased 56.6 percent in 1995 compared to 1994, and during the same period the price of corn rose 15.1 percent. These increases are influenced by a rise in international market prices as a result of China’s massive imports of food grains in 1995.

²³ For American policy, see *Foreign Assistance to North Korea* (CRS Report for Congress, ed. May 26, 2005)

<http://www.nautilus.org/napsnet/sr/2005/0550acrs.pdf> p.18

²⁴ *ibid*

²⁵ Imported cheap wheat or corn by exporting higher priced rice.

Table 10. North Korean Imports of Food Grains.

(Upper Column: Quantity 1000 tons, Lower Column: Value million US\$)

	Wheat	Rice	Corn	Flour	Total
1990	300	27	264	n.a.	596
	45	7	40	n.a.	92
1991	1175	146	247	2	157
	118	34	32	1	184
1992	166	315	587	61	1154
	17	80	90	19	206
1993	439	200	876	40	1585
	57	45	122	10	236
1994	258	56	244	10	573
	26	11	34	3	74
1995	100	587	110	140	1010
	11	180	18	42	255
1996	216	340	85	333	1106
	24	112	15	98	249
1997	57	310	654	272	1468
	7	105	109	74	306
1998	200	508	596	135	1507
	27	134	84	33	280
1999	473	250	406	42	1195
	91	75	50	8	226
2000	600	448	500	131	2299
	91	111	50	23	275
2001	700	684	526	100	2051
	75	110	50	13	249
2002	400	832	408	132	1825
	46	86	39	11	182
2003	435	802	323	98	1725
	43	86	24	9	166
2004	557	702	323	152	1805
	62	85	32	18	199

Source: FAOSTAT

Table 11 shows exports of food products to North Korea by the countries whose statistics are available in the *World Trade Atlas* and South Korea. In 2003, the South was the biggest export country followed by US and China. During the Soviet period, the Soviet Union exported about 150 to 200 thousand tons of grain to North Korea, whereas since becoming Russia the trade has sharply declined. In 2004, Russia managed to export 34 thousand tons of wheat to the North, but in 2005, export from January to September was zero. The North imported mostly wheat from European countries, and rice from Thailand continuously at about 100 to 200 thousand tons per year. In addition, it also imported soybean dross from India for use as feed grain.

Table 11. Exports of Food Products to North Korea

(unit: Upper Column: Value: thousand US\$, Lower Column: Quantity: tons)

		2003	2004	2005
China	Corn	14,633	5,546	36,104
		136,310	39,338	270,798
	Rice	21,433	7,129	11,653
		115,120	37,485	47,613
	Barley	339	54	101
		2,036	273	383
	Other	13,556	2,546	2,433
	Grains	95,699	12,764	12,033
	Pork	56,420	13,498	95,565
		46,883	87,026	61,609
Russia	Wheat	65	5,309	—
		1,070	34,716	—
US	Wheat	39,202	648,215	104,857
		213,356	2,812,784	495,857
Canada	Wheat	616	249	266
		26,856	10,398	13,685
EU(15)	Wheat	504	699	—
		4,000	3,948	—
Thailand	Rice	17,669	41,953	26,975
		95,293	183,864	100,051
India	Bean Cake	2,227	59,509	—
		10,505	231,287	—
South Korea	Rice	122,200	164,600	110,096
		500,000	500,000	—

Source: World Trade Atlas, Korea Institute for National Unification

4. Prospects

At present North Korean foreign economic relations are confined to an extremely limited scope. Although it initially proclaimed a self-reliant national economy and aimed at a self-sufficient economic system, in reality, aid from socialist countries and trade with socialist countries had great contributions to its early economic growth. For crude oil and petroleum products, North Korea relied entirely upon imports from the Soviet Union and China. Imports of food products from socialist countries were also necessary in order to guarantee domestic needs.

In fact, North Korea has a very high rate of foreign trade dependency (the rate of the sum of export and import to GDP). The dollar value of the GNP will depend on which rate of exchange is

used to convert GNP into domestic currency. South Korea's Ministry of Unification estimated that the North's GNP was \$20.8 billion and the total value of trade was \$2.86 billion in 2004. According to these estimates, the rate of foreign trade dependency in North Korea will be 13.8 percent in 2004. However, with 44 countries alone (Table 1) the North's total trade (even with FOB, CIF conversions) was already \$3.386 billion in 2004. Using the same South Korean estimate of GNP and North Korea's trade with 44 countries, the rate of foreign trade dependency will be estimated to be 16.2 percent in 2004, while using statistics from the IMF, the *Direction of Trade* rate will be 19.3 percent in the same year. Of course, because its trade imports are greater than exports and imports include aid goods, the rate may not be the measure of trade dependency in a strict sense. However, one can notice from those estimates that the North's economy will not be able to sustain itself with the domestic economy alone. It is not possible to simply compare North Korea with China, a country with vast land and endowed with diverse resources. It is interesting to note that the rate of foreign trade dependency was 5 percent at the time when China, like North Korea presently, was under a system of isolation.²⁶

After the missile launch in July 2006, both China and Russia voted in favor of, instead of abstaining from, the U.N. Security Council decision to condemn North Korea, suggesting that China and Russia, especially China, reached a point where a change in their policy toward North Korea became inevitable. Probably, China until now felt that the cost of continuing aid to North Korea (with not too large an annual cost) is more cost effective than cost of North Korea's collapse (with a very large short term cost) and thus carried on with the aid. However, since North Korea launched missiles and its nuclear test was indeed carried out, China may be forced into a position where "maintaining the *status quo*" with respect to North Korea is untenable from an international relations point of view. If the North engages in money laundering of counterfeit dollars and counterfeit Chinese yuan, it will adversely affect the Chinese economy. In that case, there is not much chance of unfreezing the North Korean account at the Bank of China Macao branch.

As a result of North Korea's nuclear test, an economic sanction based on the U.N. Charter, Chapter 7, Section 41, was unanimously adopted by the U.N. Security Council. Accordingly, North Korea's trade with and aid from China and South Korea will most likely be decreased. Therefore, it must be concluded that any outlook for North Korea's economic recovery in the near future becomes extremely pessimistic.

(Sources for information in the main text, unless specified, are based on the *World Trade Atlas*, published by GTIS.)

²⁶ Figures in 1970. In 1966 when the Cultural Revolution began, the rate was 6.8 percent, and in 1976 when the Cultural Revolution ended, the rate was 9 percent. Calculated from p.3 and p.60 in the *Comprehensive Statistical Data and Materials on 50 Years of New China*, the rate reached 69.8 percent in 2004, estimated from p. 51 and p. 626 in the *China Statistical Yearbook* (2005).

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